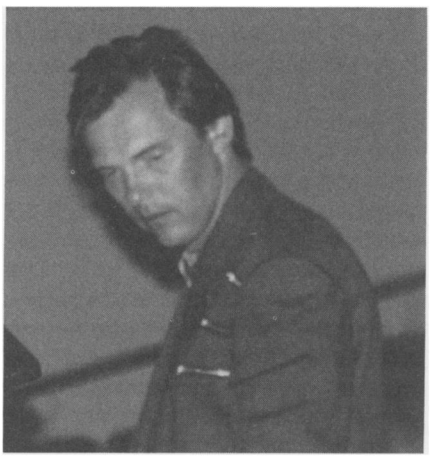
Fig. 6. Swedish Composer Åke Parmerud at NEMO 1992.



example of a largely ignored genre of computer music: computer-controlled mechanical performance of acoustic instruments. With the possible exception of the Disklavier and some isolated experiments, few composers today have taken the trouble to build robot-performed instruments. Yet, this is the only way we can bring the power of computers into the realm of true acoustic music. The idea goes back to the marvelous old nickelodeon contraptions of the days before phonographs ruined our ears. These one-man bands would bow violins with revolving stone wheels, while mechanical fingers stopped the strings and various pulleys and levers kicked, hit, strummed, pounded, and shook percussion instruments and pianos. Perhaps the only contemporary composer to really take mechanical instruments seriously is Conlon Nancarrow with his terrific player piano pieces. Trimpin, a composer and inventor of unique mechanized musical instruments, also comes to mind. It is hoped (by me) that conservatories will realize that the twentieth century is almost over, and it is time to start requiring students to write at least one computer-controlled robot ensemble work before being allowed to graduate.

The Misfortune of the Immortals

Atlantic Center for the Arts, 1414 Art Center Avenue, New Smyrna Beach, Florida USA, 4–30 January 1993

Reviewed by Donna McCabe Oakland, California USA

Where else would creative people like to spend the month of January but in Florida, at New Smyrna Beach's Atlantic Center for the Arts? The month was dedicated to working with master artists-in-residence Joan LaBarbara, Morton Subotnick, Mark Coniglio, and Steina and Woody Vasulka.

Upon arrival at Atlantic Center, artists were greeted by a 67-acre, secluded, heavily wooded oasis, which we called home for the month. The Center includes an administration/gallery complex, a multipurpose workshop, and an outdoor amphitheater. Master artists resided in cottages, with associate artists in private rooms with baths. The land has been left in its natural state (including lizards, spiders, and snakes), and all buildings are joined by raised wooden walkways.

Morton Subotnick and Joan LaBarbara introduced the other master artists, and we were all on our way to a month of work and fun, living among the artists and other animals in the woods. Master artists spent most of the month working on *The Misfortune of the Immortals.* This is a multimedia theater work of three interconnected scenes, which in the final version will be performed without intermission. Subotnick and LaBarbara are the musical directors of the project, and sound designer Mark Coniglio is the technical director.

For the first weeks, LaBarbara led morning workshops on extended vocal techniques and vocal warm-ups. In addition, dancer Dawn Stoppiello conducted movement workshops. LaBarbara's focus was on the combination of voice with movement and the specific problems inherent to performance artists. LaBarbara's unique and always exploring voice resulted in exciting workshops and experiments, for both singers and not.

Mark Coniglio and Subotnick led workshops in the application and programming of Interactor, a computer program designed by Subotnick and written by Coniglio. Associates were given intensive lessons on the programming and techniques of using Interactor and were then free to use several Macintosh stations running the software. Coniglio constantly answered questions and offered support, and Subotnick freely divulged his particular application of the program.

After several days of workshops, the 15 associate artists divided into two groups, those interested in voice and movement and those interested in learning and programming with Interactor. LaBarbara was available for private sessions during the days, and Coniglio and Subotnick were available for questions and help, as well as demonstration of their own work.

One goal of the monthlong workshop was an open rehearsal of *Misfortune of the Immortals,* and it was toward this end that the master artists worked. It was staged in the outdoor theater. LaBarbara enlisted the aid of several vocalists to perform as a type of chorus in her part of the work, a piece loosely based on the life and times of Stephen Hawking, the brilliant physicist and author of *A Brief History of Time. Misfortune* addresses the question that inevitably accompanies any technological advance: Is it a humanizing or dehumanizing force? The work is both a celebration of technology and a warning.

LaBarbara plays a person physically bound in a wheelchair. Although the

body is physically deteriorating, the mind, like Hawking's, is more alive than we can imagine. Communication relies on the use of technology. Through La Barbara's extended vocal techniques, she presented a situation in which it became obvious to a listener that she was trying to tell us something—but what? Thence the need for technology. LaBarbara sings into a microphone, which inputs through a MIDI Pitchrider. The Pitchrider converts her singing into MIDI notes and tries to distinguish the pitch of her extremely timbrally rich voice. Through some Interactor programming, a single low tone causes an overhead light to fade in and out with her singing. Once she hits a multiphonic, the Interactor scene changes and she is then controlling a new set of lights. At the open rehearsal, the first section looked great.

Subotnick presented the second scene along with associate William Pomerantz. Constantly referred to as the peacock, Subotnick shows a man who is learning about a new extension to his own body—musical hands. Through a glove designed by Coniglio using variable resistors attached to the fingers and a mercury switch on the wrist of the glove, Subotnick displays a person learning to understand the capabilities of his new hands, hands that pick notes from the air. These same hands eventually play concertos in midair. Morton Subotnick explained at the open rehearsal the scale of his portion of *Misfortune*. What we saw was only a small portion, the rest is anxiously awaited.

Mark Coniglio, working with dancer Dawn Stoppiello, created a piece using Coniglio's MidiDancer. MidiDancer is an expanded version of his glove, using the same variable resistor bands, which strap to the dancer's body and get hooked into a frequency modulation transmitter on the body. A much-needed MidiDancer leotard is on the way. The sensors were on various parts of Stoppiello, and each unique combination of limb movements would send a number to Coniglio's FM receiver, which was input to the printer port of his Macintosh and arrived into Interactor, in real time. Instead of dancing to music, Stoppiello created the music as she moved and was in complete control of when events happened. Coniglio's slick programming and Stoppiello's choreography were a collaboration that we usually only dream about. The dancer pushing the musician; the musician pushing the dancer. The result was a young team with total integrity and commitment to their work. Look out for these two.

Steina Vasulka, a video artist, was also in residence during January. She put up an eight-monitor laser disk installation in the gallery building. *Tokyo Four* uses footage that she took on her recent visit to Japan. From Zen rock gardens to shy women, *Tokyo Four* was a beautiful study in movement—people's movement, machine movement, and camera movement. The laser disk panned perfectly in synchronization across the verticals and horizontals of the video towers. The color was always intense, and the continuously running presentation was a welcomed place to sit and escape for a bit.

A part of the month initiated by Steina Vasulka was devoted to performances given by various associates during the evening hours. Singers John Caponegro (Bucknell University), Dina Emerson, Chris Chalfant, and Elise Morris (all from New York) gave performances. Barbara Dickinson (Duke University) taught modern-dance classes while gracing the outdoor theater with her obviously well-rehearsed movements. Composers included Kristine Burns-Coil (Ball State University), Donna McCabe (Mills College), Jeffrey Harrington (New York), Joseph Fosco (Illinois), Orlando Garcia (Florida), Jon Nelson (Florida), Robert Martin (Michigan), Don Meissner (New York), and Andrian Pervazov (Pennsylvania). Of particular note were Martin's use of dance and lasers in performance, Emerson's dramatic performance art, Harrington's own expert musical system and computer virus music, Meissner's incredible "portable" studio and well-produced rhythms, Burns-Coil's text music, which gave her a huge project for Interactor, and McCabe's compositions, which reflect stories of Americana.

During the final week in residence, Subotnick and LaBarbara produced an open rehearsal of Subotnick's new opera *Jacob's Room*. This powerful opera grew from a string quartet that Subtonick wrote years ago. The opera will include LaBarbara, the recorded presence of Thomas Bruckner, and a cellist. The version we heard was incomplete, and staging, by director Herbert Blau, was just beginning. The story is that of a boy, Jacob, whom we know, only through his conscience, as the recorded Bruckner. He is a survivor of the Holocaust. This recorded voice eventually promises to be completely spatially located about the hall. Jacob's mother is portrayed by LaBarbara, who was passionate in performing this role. Her voice is compelling and is a good match for the ever-increasing energy in Bruckner's recorded voice. The climax of the opera is a powerful setting of the Lord's Prayer, which Subotnick creates as a pivotal and extremely emotional moment.

Video images for *Jacob's Room* were created by Woody Vasulka. The images range from the simple to the complex, but Vasulka's work is clean and powerful. During their perfor-

mance at Atlantic Center, there were two laser disk players controlled through Subotnick and Coniglio's Interactor program. There will eventually be three video images, which will be switched in time with LaBarbara's voice. Interactor was set up to allow the computer to essentially follow the performer by monitoring the voice and waiting for specific cues as determined by Subotnick. Coniglio built a rotating platform for the liquid crystal projector, so that not only is the image itself moving, but also the image can change its location in the physical room. Again, the computer-controlled Lazy Susan is being controlled via Interactor.

Steina and Woody Vasulka generously spent time with the associate artists demonstrating their own video work, as well as giving helpful tips on shooting footage at places such as the chocolate factory just down the road and the Spiritualist Center in a quaint town about 30 minutes away from the Center. Woody showed his laser disk project that details a history of both electronic music equipment and early video machines—an interactive history that is much needed. We anxiously await U.S. publication. Vasulka also encouraged associates Harrington, Meissner, and McCabe to work on integrating the Buchla Lightning with his own camera stand. His stand has a rotating head that can be positioned to any location under computer control. If Lightning could also locate his stand in any position of the room, then he would be able to gain access to moving the stand from its traditionally stationary position.

The value of the workshop was both in learning from the master artists and in living among and working with other associate artists; when 15 artists become your neighbors for a month, expect interesting things to happen. Time at the nearby beaches, walks around the wooded Center grounds, and dinners with Woody and Steina made for a month that was both relaxing and productive.

This residency marked Atlantic Center's 51st interdisciplinary session since the program started in 1982. Past residencies at the Center have included Morton Feldman, Allen Ginsberg, Alvin Lucier, Lou Harrison, Pauline Oliveros, Joan Tower, and Robert Ashley. For information about upcoming residencies, contact the Atlantic Center for the Arts.

National Association of Music Merchants (NAMM) Convention, January 1993

Reviewed by Joseph Rothstein
Honolulu, Hawaii USA

For the second time in three years, the National Association of Music Merchants trade show coincided with air assaults on Iraq. In 1991, showgoers worried about how the Iraqi war might affect the American economy, casting a pall over what had in years past always been an upbeat weekend. In 1992, an international economic decline dampened the spirits of showgoers despite a lopsided American military victory in the Gulf War.

By the time NAMM rolled into Anaheim, California, for the 1993 show, that American victory did not seem quite so complete, as television sets once again filled with images of bombs raining down on Baghdad. Even so, there seemed to be a collective determination on the part of vendors, buyers, and other participants to look on the bright side, and a mood of optimism pervaded the Anaheim Convention Center.

Whether it was due to high hopes for the newly elected American president, the recent economic upturn, or just sheer determination that conditions improve, most exhibitors reported increased orders, and most buyers seemed satisfied with the array of offerings on the show floor.

Saxophone sales were way up, and dealers of band instruments and pianos were smiling, but things were less obviously encouraging among digital musical instrument vendors and software developers. There was no single "killer product" to draw awestruck crowds as in years past, when the Alesis A-DAT, Kurzweil K2000, and Yamaha SY99 had packed each company's booth rail-to-rail with curious onlookers. Rather, it seemed as if developers were trying to determine what the "next big thing" might be while working to consolidate positions within current market niches.

Keyboard synthesizers continue to proliferate, but none seemed to stand out. Virtually every major manufacturer has sample-playback synthesizers, wave table synthesizers, and algorithmic synthesizers. Their new products played variations on these themes, but none offered a radically different architecture, user interface, or sound.

There has been considerable comment recently that MIDI has had the unintended effect of freezing technology at a certain level of development, and there appeared to be evidence to support that position. Though a wider range of equipment than ever features MIDI control, the controllers themselves provide an ever-narrower range of implementations. Keyboards dominate to such a degree that most other types of controllers have disappeared. Don Buchla's Thunder and Lightning controllers, which had a low-profile display at last year's show, had none at all this year. The same was true of the MidiVox voice controller, which drew crowds last year yet disappeared from this year's roster of exhibitors.